

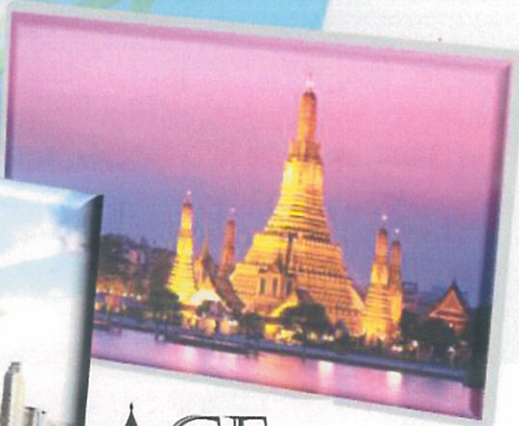


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SCIENCE JOURNAL "ACTUAL PROBLEMS
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ACE-2016

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BANGKOK, THAILAND, JANUARY, 2016

ACTUAL ECONOMY: LOCAL SOLUTIONS FOR GLOBAL CHALLENGES
ACE-2016 @ BANGKOK.TH
=AGENDA=

Day 1		Twin Towers Hotel, Bangkok
8.30	Registration open	2 nd floor
9.00	Opening ceremony	Room - Charasmuang 1
	Welcome speeches:	
-	Dr. Kevin Wongleedee	
	<i>Director of Institute of lifelong Learning Promotion and Creativity, Suan Sunandha Rajabhat University, Bangkok, Thailand</i>	
-	Dr. Koh Noi Keng	
	<i>Professor, National Institute of education, Singapore</i>	
-	Darina Prokhorova	
	<i>Executive redactor, science journal "Actual problems of economics", Kyiv, Ukraine</i>	
-	Johan W de Jager	
	<i>Tshwane University of Technology, South Africa</i>	
-	Agus Hekso Pramudijono	
	<i>Ministry of Finance of Republic of Indonesia</i>	
-	Sukrit Ratanadachasakool	
	<i>Youth ambassador of Thailand in the United Nation, Suan Sunandha Rajabhat University</i>	
	Thai dance show	
	Group photo	Foyer, 2 nd floor
10.15	Coffee – break	
10.30	Key-note speech by Dr. Koh Noi Keng	
	<i>National Institute of education, Singapore</i>	
11.15	Special work-shop	
	<i>"Current trends in international editorial standards: how to get published at one dash" by Darina Prokhorova</i>	
	<i>Executive editor of science journal "Actual problems of economics", Kyiv, Ukraine</i>	
12.00	Lunch	Restaurant, 1 st floor
13.00	Sessions 1.1, 1.2	Room - Charasmuang 1, Room Charoenmuang
15.00	Coffee – break	Foyer, 2 nd floor
15.20	Sessions 2.1, 2.2	Room - Charasmuang 1, Room Charoenmuang
18.00	Dinner. Award ceremony	Room - Charasmuang 2
	Entrance for dinner IN NATIONAL COSTUMES	

Day 2		Twin Towers Hotel, Bangkok
9.00	Sessions 3.1, 3.2	Room - Charasmuang 1, Room Charoenmuang
11.00	Coffee-break	Foyer, 2 nd floor
11.15	Session 4.1	Room - Charasmuang 1, Room Charoenmuang
13.00	Lunch	Restaurant, 1 st floor
	Closing ceremony	

LIST OF SESSIONS:

Day 1 // 13.00 – 15.00. Room - Charasmuang 1

Session 1.1 - Modern economic policy: regional and national aspects**Chairman:** Koh Noi Keng*National Institute of education, Singapore*

- 1 Oleg Patlasov (Omsk Humanitarian Academy, Omsk, Russia)
Economic modernization of BRICS countries on their way to global creativity
- 2 Karol Janas (Department of Political Science Alexander Dubcek University in Trencin, Slovakia)
The Functioning and Safeguard Operation of Integrated Rescue System in the Slovak Republic
- 3 Rudolf Kucharcik (Department of Political Science, Alexander Dubcek University in Trencin, Slovakia)
Economic and Social Priorities in Political Parties' Manifestos for Parliamentary Election in the Slovak Republic in 2016
- 4 Tucker Reed (New York University, New York city, USA)
Building a Technology Triangle in Brooklyn: 5 key areas of focus
- 5 Heny Hendrayati, Vanessa Gaffar (University Pendidikan, Indonesia)
Political Marketing At The General Election In Indonesia
- 6 Mila Mumpuni, Agusta Rizar Binadja (Ministry of Finance, Republic of Indonesia)
Realigning Indonesia's Human Resource Development Strategy in Dealing with ASEAN Economic Community
- 7 Martin Allinson (Khon Kaen University, Thailand)
The Isan Economy: An Actual Local Solution for Global Challenges
- 8 Kalenova Saulesh, Nurzhaubayeva Raissa (University "Turan", Kazakhstan)
Combatting Poverty under the Conditions of Mass Increase of Transcontinental and Cross-Border Migration: Time for A Paradigm Shift

Day 1 // 13.00 – 15.00. Room Charoenmuang

Session 1.2 – Problems of international financial markets and commercial banks functioning**Chairman:** Agus Hekso Pramudijono*Ministry of Finance of Republic of Indonesia*

- 1 Ahmad Adriansyah, Surachman Surjaatmadja (Indonesia Banking School)
Two Factors That Determine Innovation Performance in Indonesia Banking Industry: A Knowledge Based View Perspective
- 2 Nuri Wulandari, Abdul Salam (Indonesia Banking School)
Cashless Payment asan Alternative Solution for Black Money in Tourism
- 3 Amir Machmud (Indonesia University of Education, Bandung, Indonesia)
The Determinants Of Islamic Banking Finance Performance In Indonesia
- 4 Ikaputera Waspada (Indonesia University of Education, Bandung, Indonesia)
Profitability Analysis Of Stock Price Telecommunications Sector Sub In Indonesia Stock Exchange (Idx) Year 2009-2014
- 5 Maya Sari, Disman, Nugraha (Indonesia University of Education, Bandung, Indonesia)
Capital Structure Determinants: Empirical Evidence From Indonesia Capital Market
- 6 I Made Surya Negara, Sudirman, I Gusti Bagus Wiksuana (Udayana University, Indonesia)
An Evidence of Capital Markets Cointegration Decline in Five ASEAN Countries
- 7 Agus Hekso Pramudijono, Abdul Gaffur A Dama (General Finance Education and Training Center, Finance Education and Training Agency, Ministry of Finance of Republic of Indonesia)
National Potential Loss While Using Foreign Payment Network
- 8 Husaina Banu Kenayathulla (University of Malaya, Malaysia)
Financial adequacy and low performing schools: Evidence from Malaysia

Day 1 // 15.20 – 17.30. Room - Charasmuang 1

Session 2.1 – SME development: modern tendencies and regional features**Chairman:** Darina Prokhorova*National Academy of Management, Kyiv, Ukraine*

- 1 Rofi Rofaida, Suryana, (University Pendidikan Indonesia, Bandung, Indonesia)
Competency, Motivation, and Business Performance : Moderating Effect of Entrepreneurial Behavior
- 2 Y. Sri Susilo (YSS), Edy Suandi Hamid (ESH) (University Islam Indonesia, Yogyakarta, Indonesia)
Competitive Strategy & Survival Strategy of the Small and Medium Industries: Case in Yogyakarta, Indonesia 2015
- 3 Indrianawati Usman, Nur Laily, Marannu Marsudi (University Airlangga, Surabaya, Indonesia)
The Influence Of Entrepreneurial Leadership And Good Governance To Operational Performance Mediated By Business Process Management Of SME In Batik Industry
- 4 Agusta Rizar Binadja, Mila Mumpuni (Finance Education and Training Agency, Ministry of Finance of Republic of Indonesia, Tangerang Selatan, Indonesia)
Empowering Indonesia's Small Medium Enterprise Through The Development of Digital Economy
- 5 Roos K. Andadari Satya Wacana (Christian University, Indonesia)
Can Indonesian SMEs Compete with their Partners in the ASEAN Economic Community?
- 6 Mahir Pradana (Telkom University, Indonesia)
Understanding Collective Problem-Solving In E-Commerce: Crowd-sourcing As A Virtual Business Model
- 7 Chukiat Chaiboonsri, Prasert Chaitip (Chiang Mai University, Chiang Mai, Thailand)
AEC Extreme Value Analysis to Exploring and Indicating Evidence for the AEC Countries
- 8 Prasert Chaitip, Fawikorn Inluang (Chiang Mai University, Chiang Mai, Thailand)
An Application of Panel ARDL in Management on Import Values for Dairy Industry in Thailand

Day 1 // 15.20 – 17.30. Room Charoenmuang

Session 2.2 – Marketing issues on Global and Regional economies development**Chairman:** Johan W de Jager*Tshwane University of Technology, South Africa*

- 1 Mokhammad Adib Sultan (Universitas Pendidikan, Bandung, Indonesia)
Role of motivation to elaborate information on the intentions of tourists visiting
- 2 Ayu Krishna Yuliawati, Agus Rahayu, Mohamad Sapari Dwi Hadian (Universitas Pendidikan Indonesia)
Consumer Based Brand Equity in Indonesia Geotourism Market (A Survey at Indonesian Geotourism Destination)
- 3 Margaretha Pink Berlianto, John Tampil Purba (Business School, Pelita Harapan University, Lippo Karawaci, Tangerang, Indonesia)
Service Information for Intention to Buy with Groupon Application Viewed From Technology Readiness and Acceptance Indonesia Evidence
- 4 Wasi Bagasworo, Achmad Fajar (Indonesia Banking School)
Increased customer loyalty with the use of customer relation management through Customer Satisfaction: A study in Assa Rent A Car in Jakarta, Indonesia
- 5 Titiyoot Nuengchamnon, Sorrapakksorn Chatrakamolathas (Burappha University, Chonburi, Thailand)
Gender Effects on Customer Satisfaction Towards Products and Service at a Local Italian Bistro in Chonburi
- 6 Ayi Tejaningrum (STIE EKUITAS, Bandung, Indonesia)
Performance management based on the balanced score card Pt . Pertamina marketing unit
- 7 Johan W de Jager (Tshwane – University of Technology, South Africa)
Pre-Flight Expectations in the Air Transportation Industry of South Africa: A Confirmatory Factor Analytical Approach
- 8 Mahachai Sattayathamrongthian (Rajamangala University of Technology Rattanakosin, Nakhon Pathom, Thailand), Yingsak Vanpetch (Suan Sunandha Rajabhat University, Bangkok, Thailand)
Foreign Tourist's Perception toward Visiting Thailand after Erawan Shrine Bombing

Day 2 // 09.00 – 11.00. Room - Charasmuang 1

Session 3.1 – Issues on modern industries development**Chairman:** Lorina Siregar Sudjiman*University Pendidikan Indonesia, Bandung, Indonesia*

- 1 Santi Budiman (STIE IEU Yogyakarta, Indonesia), Tony Wijaya (Yogyakarta State University, Indonesia)
Problem of Organic Food Purchase Intention: Case study of Indonesian consumer
- 2 Prasert Chaitip, Fawikorn Inluang (Chiang Mai University, Chiang Mai, Thailand)
Policy Management in Transitive Benefits for Small-scale Sugarcane Growers of the Sugarcane and Sugar Industry in Thailand
- 3 Triana Fitriastuti, Dhina Mustika Sari (Mulawarman University Samarinda, East Kalimantan, Indonesia)
The participatory rural appraisal study (pre) in establishing of sugar palm centralization area
- 4 Lorina Siregar Sudjiman (University Pendidikan Indonesia, Bandung, Indonesia)
The effect of working capital on profitability level at PT Ultrajaya milk industry & trading company
- 5 Kanchit Suknark, Jirakom Sirisrisakulchai, Songsak Sriboonchitt (Chiang Mai University, Thailand)
The recommended policies designed to increase health inducing behavior for Thailand
- 7 Laily Fitriana, Rudi Febriamansyah, Refdinal (Andalas University, Indonesia)
Climate changes and risk analysis of red onion farming: a case from Nagari Saning Baka, Solok, West Sumatera Province, Indonesia

Day 2 // 09.00 – 11.00. Room Charoenmuang

Session 3.2 – Corporative management and staffing in international companies**Chairman:** Siriwan Saksiriruthai*Suan Sunandha Rajabhat University, Bangkok, Thailand*

- 1 Agus Rahayu, Lili Adi Wibowo, Ayu Krishna (University Pendidikan, Indonesia)
Local unique resources based management and its effect on advantage
- 2 Rr. Rachmawati, Ganjar Garibaldi, Deddy Rusyandi (STIE EKUITAS School of Business, Bandung, Indonesia)
The Effect of Compensation to Employee Performance outsource at STIE Ekuitas: motivation as an intervening variable
- 3 Antonius Dieben Robinson Manurung, Alana Damaris, Nunnie Widagdo (Indonesia)
The Influence Of Heroic Leadership And Positive Psychological Capital On Quality Of Work life
- 4 Taridi K Ridho (State Islamic University "Syarif Hidayatullah", Jakarta, Indonesia)
The Influence Of CSR On Performance And Its Determinants In Listed Companies In Indonesia
- 5 Jahja Hamdani Widjaja (Maranatha Christian University, Indonesia)
The Role Of Organizational Change Process And Organizational Culture In Indonesian Higher Education Strategic Change
- 6 Siriwan Saksiriruthai (Suan Sunandha Rajabhat University, Bangkok, Thailand)
Sufficiency Economy as a Strategy for Value Chain Process Improvement

Day 2 // 11.20 – 13.00. Room - Charasmuang 1

Session 4.1 – Economical and managerial issues on market dynamics**Chairman:** Apenko Svetlana*Omsk State University, Omsk, Russia*

- 1 Apenko Svetlana, Romanenko Mikhail (Omsk State University, Omsk, Russia)
Enterprises innovative projects personnel potential in conditions of globalization and international professional standards
- 2 Apenko Svetlana, Gileva Kristina (Omsk State University, Omsk, Russia)
Changes In Human Resources Development In Implementation Of National System Of Qualifications
- 3 Adisak Suvittawat (Burapha University, Chonburi, Thailand)
Food Cold Chain Transportation: Eastern Part of Thailand
- 4 Tran Ai Huu (Van Hien University, Ho Chi Minh, Vietnam)
Research consumers purchase behaviour towards green purchase intention
- 5 Tran Ai Huu (Van Hien University, Ho Chi Minh, Vietnam)
The Influence Factors Of Consumers Acceptance Of Organic Food In Vietnam
- 6 Denis Ushakov (Suan Sunandha Rajabhat University, Bangkok, Thailand)
Organizational modernization as source of innovative companies competitiveness
- 7 Shieh Chieh-Jen (Chang Jung Christian University, Tainan, Taiwan, ROC),
Denis Ushakov (Suan Sunandha Rajabhat University, Bangkok, Thailand)
Global cities networking as a trend of global economy development
- 8 Alexey Arkhipov (South Russia Federal University, Rostov-on-Don, Russia),
Denis Ushakov (Suan Sunandha Rajabhat University, Bangkok, Thailand)
Governance in terms of the multinational entrepreneurship development: problems, prospects and directions for transformations

Chapter 1			
economic		Modern	
		policy:	
regional			
		and	
		national aspects	

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Climate Changes and Risk Analysis of Red Onion (*Allium Ascalanicum*) Farming: A Case from Nagari Saning Baka, Solok, West Sumatera Province, Indonesia

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Abstract

Red Onion (*Allium Ascalanicum*) is a non-substituted commodity for Indonesian consumer. It is a well-known situation in Indonesia, where the fluctuation supply of some agriculture products like rice and also red onion may causes the economic inflation in one region. It is even often happening in the long Moslem Holiday since Ramadhan fasting month up to Idul Fitri Holiday where the demand of food products significantly higher than its supplies. Nagari Saning Baka is a well-known village in Solok Regency as a center of red onion production in West Sumatera Province. However, since around 1980s, secondary data from local government showed significant decreased of production area of this crop. Local farmers mentioned factor of climate, especially the uncertainty of rainfall season in this region has caused the uncertainty to produce better harvest of this red onion. Since 2000, averagely, maximum yields of red onion from this area only around 8 Ton/Ha, much lower compare to average maximum yields in Solok Regency for about 10 Ton/Ha.

This study have tried to identified factors that influence the production risk of red onion in this region by using regression analysis to test some hypothetical input factors, like numbers of seed, fertilizer, volume of pesticides, frequency of pesticides applied, labor, and variety of red onion itself. The production risk as dependent variable is identified by calculating the variance of production for each farmer. This study uses cross section data by collecting information from 70 farmers as sample. As a result, the risk analysis showed that red onion farmers are facing high risk in their farm, and higher risk in hot season compare to rainy season. The expected production of red onion is only 3.2 Ton/Ha per planting season. The result for regression analysis showed that only three input factors have showed high significance in influencing the production risk of red onion, are; the use of single fertilizer, leaf fertilizer and the uses of pesticides.

Key-words Red Onion, Production Risk Analysis, Climate Changes

Introduction

Red onion is a leading commodity that had become a hot issue in the economy and business in Indonesia due to its high contribution to inflation rate along with red chili in 2013. At that time, the market price of red onion reached the fantastic figure of Rp 80,000,- per Kg. The shortage of red onion in the market was the main cause of sharp increase in its price in 2013, while it is always needed on a daily basis, and does not have right substitute in cooking. Bad wet season caused crop failures that pushed domestic supply of red onion to drop. Therefore, import was required to meet domestic demand. However, port services did not run well that led to the breakdown of the distribution of red onion. Cartel practices at importer level worsened the condition that made onions pile up at the port.

The strong position of red onion in the market should be opportunity for farmer to produce more. However, farmers face some production risks whole year around. In wet season, excess water occurs that encourages diseases. In dry season, it tends to have greater pest attack. As a result, the use of production inputs is not effective.

The situation is experienced by onion farmers in Junjung Sirih Sub district, Solok Regency. They even faced dried up in 1999 due to drought and disease caused by fungus (*Cesospora dudhae*). This condition caused low yield of red onion in this area and discouraged farmers to produce red onion. Central Statistic Board of Solok (CSB Solok) reports that the yield of red onion in Junjung Sirih in 2010-2014 was volatile and lower than national and regional yield. The production of red onion in this sub district was 7 Tonne per hectare in 2009, then decreased dramatically to 2.68 tonne per hectare in 2010, and reached 8.03. The fluctuation of production indicates that red onion farmers face production risk. In order to scale up red onion farmers, factors contributing to the risk production of red onion need to be investigated. In this paper, we figured out the level of risk production in red onion farming in wet and dry seasons and identified factors affecting risk production of red onion farming. The result of this study would be valuable for the government in making policies to develop red onion farming system. This study could be as a reference for agribusiness entrepreneurs in developing their business

Literature review

According to Kountur (2006) the uncertainty may produce the risk of management in form of economic uncertainty, natural condition and humanity. In term of economic uncertainty, it may includes the uncertainty of consumer and producer behaviour, input and output prices, market uncertainty and others. In term of natural condition it may includes natural disaster, fire accident, and also climatic changes. While in terms of humanity uncertainty, it may includes war, crime, leadership and etc. Muslich (2007) have tried to distinguished the production risk based on three categories, first is based on its character, second is based on its possibility to be managed, and third is based on its sources.

In case of agriculture production, Harwood et al. (1999) divided the agricultural risks into five categories: production risks, price and market risks, institutional risks, financial risks and personal risks.

Methodology

This research was conducted in Kanagarian Paninggahan and Muaro Pingai, Junjung Sirih Subdistrict, Solok Regency, West Sumatra. The research locations were selected purposively for two reasons: (1) farmers produce red onion in this area in two seasons; (2) this area faced crop failure due to fungal attack in 1999. Data was collected using structured interviews, direct observation and desk study. The research involved 70 red onion farmers who were selected using simple random sampling. Production factors that hypothetically affect the production risk of red onion in this study site were selected from hypothetical factors of farm management mentioned by Soekartawi (1993).

Analysis of variance and coefficient of variation proposed by Salvator (1989) were employed in data analysis using the following equations.

$$\text{Variance } (\sigma^2) = \sum_{i=1}^n (Q_i - q)^2 \cdot P_i \quad (1)$$

$$\text{Variance } (\sigma^2) = \sum_{i=1}^n Q_i^2 \cdot P_i \quad (2)$$

Where:

Q_i = Variance of onion yield per sample farmer reflecting risk facing every farmer.

σ^2 = Variance of yield

Q_i = red onion yield (quintal per hectare) per farmer

q = expected yield (quintal)

P_i = probability (the value of 0.65 for dry season dan 0.35 for wet season)

$$\text{Expected yield} = E(q) = \sum_{i=1}^n Q_i \cdot P_i \quad (3)$$

Where:

Q_i = average yield per hectare

P_i = probability (weight)

The level of risk production was analysed using equation 4.

$$KV = (\sqrt{\sigma^2})/q \quad (4)$$

Where:

$(\sqrt{\sigma^2})$ = Standard deviation
q = expected yield

Conclusions

The result reveals that 28% of respondents were in the age group of 45-54 years old. Most farmers (66%) had low educational level (primary education). The experience of farmers in red onion farming was about 2 – 7 years. Most farmers (46%) had very small size of cultivated land with the average of ≤ 0.22 hectare per farmer.

Farmers applied different quantity of inputs between the two seasons. They used more seeds in dry season than in wet season because space between seed in dry season was larger than in rainy season. Farmers used more insecticide in dry season, while in wet season they used more fungicide. They applied more fertilizer in rainy season compared to the dry season.

We found that farmers faced relatively high risk in both seasons. In the rainy season the level of risk faced by the farmers was 2.97 while it was 3.19 in the dry season. The size of cultivated land was the same in both seasons indicating that farmers did not consider the risk in the second season. The results of our study were different from study by Widyantara and Yasa (2013) where red onion farmers in Kintamani District were more willing to take the risk of production. In the rainy season the average of land size (0.25 ha) was smaller in the dry season (0.29 ha) even though the level of risk was higher in the dry season.

Farm income from red onion in Kintamani was higher in the dry season counting for Rp. 62 million than in the rainy season (Rp. 11 million). Our study found that farmers got loss in Junjung Sirih in the dry season about Rp. 145.000, - while in the rainy season they got Rp. 46 million, -. This figure indicates that farmers in Kintamani District can address the risks while farmers in Junjung Sirih were unable to cope with risks.

Prior to further regression analysis, the model was tested against the classical assumptions. The tests showed that Skewness ratio was 1.393 and kurtosis ratio was -0.572. The value was between -2 to +2 that means that the data were normally distributed. A Multicollinearity test showed that all variables were free from multicollinearity. There were no auto correlation and heteroscedasticity in the model.

The regression analysis reveals that none of variables affecting production risks in the dry season (Table 1), while in rainy season production risks were influenced by the use of single fertilizer, leaf fertilizer and the use of pesticide.

Table 1. Statistical result for factors affecting production risks in dry season and wet season

No	Variable	Dry Season			Wet Season		
		Coef.	t. Stat.	Sig.	Coef.	t. Stat.	Sig.
1	Constant	488,267	2,875	0,008	-348,115	-2,541	0,017
2	Single fertilizer	0,729	2,615	0,512	0,729	2,621*	0,014
3	Organic fertilizer	-147,215	-0,215	0,234	-148,346	-1,592	0,123
4	Leaf fertilizer	75,152	0,715	0,480	250,587	3,076*	0,005
5	Pesticide	2,422	-0,324	0,748	17,081	5,536*	0,000
6	Freq. Spraying	-2,911	0,642	0,535	1,555	0,721	0,477
7	Variety	-146,108	-1,773	0,087	-112,910	-1,084	0,288
F stat		1,088			10,439		
					Sig:		
					0,394		
F Table		2,445			2,445		
R ²		0,189			0,691		

Dependent variable: Risk *) Significant

At the 90% confidence interval level in the dry season, the calculated F value test of 1,088 is lower than F table of 2,445. It means that Ho was accepted; therefore we concluded that none of the variables suspected to affect production risk significantly. The models could not estimate the risk variables.

R² value in the dry season is very low. At only 18.9% of risk variables can be explained by the independent variables, the remaining 81.1% is explained by other variables outside the model. Other variables outside the model that became a source of risk in dry season could be the climate, smog and pests and plant diseases. Climate and smog are a source of risk that is not able to be solved by the

farmers during the dry season. Pests and plant diseases in the dry season are also difficult to address even though the control has been carried out.

Based on the signs of regression coefficients in the dry season, it showed that the variables of a single fertilizer, leaf fertilizer, and frequency of pesticide spraying were risk-inducing factors, while organic fertilizers and varieties were risk-reducing factors. However, all these factors did not significantly affect the risk production variable. An increase or reduction of the use of these factors would not be beneficial. However, farmers could consider these results related to a reduction in production costs.

In contrast to the rainy season, the calculated F value of 10,439 was greater than F table of 2,445. The decision was rejected Ho and accepted H1. This indicates that there was at least one independent variables that influence production risk significantly. The model can estimate the risk variables in the rainy season.

The coefficient of determination (R²) in the rainy season was high counting for 0,691, meaning that 69.1% dependent variable (Y) can be explained by the independent variables, while the remaining 30.9% is explained by other variables outside the model.

In the partial test, variable single fertilizers (X1), leaf fertilizer (D2) and pesticides (X4) affect production risk significantly at the 90% confidence level. These three variables were risk-inducing factors, in which increasing the use of these factors may increase the risk.

The regression coefficient of single fertilizer was positive. It was contradictory to our expectation. The positive value is likely to occur due to saturation of the soil for chemical fertilizers that causes soil cannot increase fertility even fertilizer applied continuously.

There was a strong influence of leaf fertilizer on production risk with the positive sign. The regression coefficient of leaf fertilizer was 250.587 with t statistic of 3.076. According to Baswarsati (2009) that fertilizer applied to leaves is usually a fertilizer containing micro elements and serves as additional fertilizer or supplement. Fertilizer Micro nutrient fertilizer needs a fairly long process before being absorbed by plants. As onions are seasonal crop, they do not need this fertilizer. Since this variable significantly influenced the production risk, the application of this type of fertilizer needs to be reduced in order to reduce production costs.

The regression result reveals that pesticide had strong influence on risk production. The regression coefficient was 11,832 and t statistic of 5,536. In our study pesticide was a risk inducing factor. The result is similar to study by Pratiwi and Murantiyadi (2011) in Citapen, Ciriwi Sub District. The use of pesticides continuously with the same brand and the same formula can actually make pest increasingly resistant to pesticides. The impact is not directly visible but will happen in the next planting period, where pest growth is more rapid and resistant (Girsang, 2009), therefore the use of additional pesticide becomes useless and it raises the risk of production.

However, research conducted by Puspitasari (2011) showed different result, in which the pesticide variable can be a risk reducing factor. The use of pesticides with proper dosage and time is able to suppress pest growth and population. Pest and disease control need to be done with accurate dosage, proper time and right target. Pest and disease control can also be done in an integrated way. This strategy could allow the use of pesticides to address the problem, and crop production increases.

Red onion farming in Junjung Sirih need attention from relevant agencies such as agricultural extension centers through UPTD Center for agricultural training to improve farmers' knowledge in the use of production inputs such as single fertilizer, leaf fertilizer and pesticide which had strong influence on production risk. Socio-cultural approach need to be applied to the community in order to receive guidance on cultivation techniques, the correct use of production inputs and technology adoption.

Acknowledgement

The author would like to thank the PEER-USAID project at the Andalas University for its financial support for this research

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Problem of Organic Food Purchase Intention: Case Study of Indonesian Consumer

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Abstract

Environmental problems occurred in Indonesia so far show that there is a tendency of environmental quality degradation. Need for quality healthcare in the areas of food and nutrition has been increased. Less behavior, to buy green product in Indonesia, becomes an interesting part of this research. This research aims to examine a model which presents effects of man-nature orientation, of attitude toward organic food, of subjective norm, and of purchase behavioral control toward purchase intention of organic food.

Data collection method of this research used questionnaire, which was arranged through an exploration study based on theory of planned behavior. The sample of this research were housewives as last consumers from Yogyakarta, Jakarta and Surabaya-Indonesia. The data analysis using Structural Equation Modelling (SEM).

The result of this research proves that man-nature orientation is an indirect predictor for purchase intention of organic food. Man-nature orientation, subjective norm, attitude toward organic food, and purchase behavioral control give positive contribution for purchase intention of organic food. All of the hypothesis in this research were fully supported.

Key-words Organic Food, Man-Nature Orientation, Purchase Intention

Introduction

One of the reasons that the focus in this study is an increased need for quality healthcare in the areas of food and nutrition-induced changes in the concept of satisfying the physical needs into achieving a healthy life. The increase is formed due to the belief that a healthy and natural diet can lower the prevalence of various diseases (Kotz & Story, 1994). This raises the demand for and consumption of products related to health care (Moorman & Matulich, 1993; Worsley & Scott, 1999).

A revolution of environment-friendly products happens because it is proved that 30% until 40% of environmental degradation is caused by household consumption activity (Chan, 2001). An understanding to environment of all societies in a consumer context needs to be improved in order to solve those problems. With that understanding, consumers will be more aware to the importance of environment-friendly product and be willing to pay environment-friendly product, such as organic food, with a better price. (Vlosky *et al.*, 1999; Laroche *et al.*, 2001).

A research conducted by Sihombing (2007) and Suprpto & Wijaya (2012) indicated the fact that purchase behavior of environment-friendly product is still low. Therefore, factors which contribute to explain purchase behavior of environment-friendly product, especially organic food, still need to be further explored. The understanding of factors which contribute to explain purchase behavior of organic food is expected to be able to reduce environmental degradation through consumption aspect, or in economics law usually known as demand aspect. High demand increase of organic food will trigger the growth of organic food, or from economics aspects called as offering.

Some studies on consumer behavior try to identify factors whose contribution is essential to consumer behavior of organic food product (Aertens *et al.*, 2009; Bui, 2005; Chan, 2001; Chan & Lau, 2000; Chan, 1999; Chan & Yam, 1995; Chiou, 1998; Dispoto, 1997; Follows & Jobber, 2000; Gracia & Magistris, 2007; Kalafatis *et al.*, 1999; Ling-ye, 1997; Lodoros & Dennis, 2008; Magnusson *et al.*, 2001; Maloney & Ward, 1973; Sampson, 2009; Tarkianien & Sundqvist, 2005). Those studies explore the variables which become antecedent for purchase intention of organic product.

Some findings in the research on consumer behavior of organic food product attest that there are antecedent variables toward purchase intention of organic product, namely consumer value (Chan, 2001; Chan & Lau, 2001; Fraj & Martinez, 2006; Sihombing, 2007), consumer attitude (Aertens *et al.*, 2009; Chan & Lau, 2000; Chan, 1999; Chiou, 1998; Dispoto, 1997; Gracia & Margistris, 2007;

Kalafatis *et al.*, 1999; Ling-ye, 1997; Lodoros & Dennis, 2008; Maloney & Ward, 1973; Suprpto & Wijaya, 2012; Tarkianien & Sundqvist, 2005), subjective norm (Aertens *et al.*, 2009; Chiou, 1998; Kalafatis *et al.*, 1999; Lodoros & Dennis, 2008; Sampson, 2009), behavioral control (Aertens *et al.*, 2009; Chiou, 1998; Kalafatis *et al.*, 1999; Lodoros & Dennis, 2008; Tarkianien & Sundqvist, 2005). Those variables are categorized in value, attitude and behavior (Ling-ye, 1997; Chan, 1999; Chan & Lau, 2000; Chan, 2001; Laroche *et al.*, 1999; Follows & Jobber, 2000) which refer to the base model of planned behavior theory.

Environmental problems stem from human activity and consumption and production patterns so that the necessary human society in particular human concern in maintaining the quality of the environment. Behavioral preserve environmental quality depends heavily on the knowledge, attitudes, and values in consumers as human beings (Mansaray & Abijoye, 1998; Chen and Chai, 2010; Said, 2003). The concept of food and nutrition has social value, because personal choice is influenced by personal values and the values that recognized the social environment (Fotopoulos & Krystallis, 2002). Value is psychographic variables in identifying consumer segmentation for environmentally friendly products (Engel *et al.*, 2000; Fraj & Martinez, 2006). Value is often used by identifying environmentally friendly consumer behavior for marketing purposes. Values considered as an important variable in understanding consumer behavior because the fundamental purpose to present value that consumers are looking for, and ultimately to the satisfaction of their segments (Divine & Lepisto, 2005).

Value are essential factors that need to be considered in the research on consumer purchase behavior of organic product. Value is a good predictor compared to other factors. It had been proved by some researches; Sihombing (2007), and Chan (2001). The research will consider consumer value that orientates to man-nature in predicting purchase intention of organic food and its factors comprehensively. The general objective of this research is to test model of organic food purchase intention as well as factors that affect it. Specifically, the objective of this research is to test both stimulant and partial effect from predictor variable analyzed toward purchase intention of organic food; those are variable effect of man-nature orientation, attitude toward organic food, subjective norm, purchase behavioral control, concerned with purchase intention of organic food.

Research Method

Data collection and sample of respondents

Population in this research was consumers of organic food in Yogyakarta, Jakarta and Surabaya. In this research, Sample technique used non-probability technique whose methodology was purposive sampling. The used assumption was purposive sampling which were; having certain characteristics or criteria, which were consumers, especially mothers who had child, and making a decision on organic food consumption, and processing food or cooking to family daily consumption. The choice consideration of the sample was based on the result of researches done by Davies *et al.* (1995) and Fotopoulos & Krystallis (2000) whose result showed that consumers who often buy organic products are women who have child and have high education because they consider the quality of a product more rather than the price.

Respondents in this research were 69 women (13.4%) whose age was around 26-30 years old, 93 women (18%) whose age was around 31-35 years old, 138 women (26.7%) whose age was around 36-40 years old, 131 women (25.4%) whose age was around 41-46 years old, and 85 women (16.5%) whose age was more than 46 years old. In addition, the respondents whose education was Senior High School were 52 persons (10.1%), who had diploma degree were 57 persons (11%), who had bachelor degree were 241 persons (46.7%), who had master degree were 163 persons (31.6%), who had doctor degree were 3 persons (0.6%). Then, the respondents whose family income for a month around Rp 1,000,000 – Rp 3,000,000 were 4 persons (0.8%), whose family income for a month was around Rp 3,000,100 – Rp 5,000,000 were 13 persons (2.5%), whose family income for a month was around Rp 5,000,100 – Rp 7,000,000 were 74 persons (14.3%), whose family income for a month was around Rp 7,000,100 – Rp 9,000,000 were 111 persons (21.5%) and whose family income for a month was more than Rp 9,000,000 were 314 persons (60.9%).

Research Program

This research was begun through field empirical observation, which was exploration study, and also through secondary data concerned with environment. Besides, the point that referred to basic theory of planned behavior used an introductory survey through open interview whose respondents were women that had child. Open form questions in this research covered the advantage and disadvantage from the organic food purchase for family consumption, from everyone who took part in taking a choice in purchase organic food for family consumption and who became a reference in purchase organic food, from factors that caused a consumer either to be able or not to be able to buy organic food and from a consumer's point of view concerned with environment and nature.

The result of the open interview identified that a consumer's attitude toward organic products based on the benefit of organic food were health, safety, and natural, whereas the disadvantage, resulting from consumers' perception was



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